

AMENDMENTS TO THE SPECIFICATION

Please replace paragraphs [0006]-[0007] with the following paragraphs.

[0006] The present invention resides in a scalable high power laser source of which the output wavelength can be shifted to a desired region, such as the visible or ultraviolet regions of the spectrum. Briefly, and in general terms, the invention is embodied in a laser array architecture comprising an array of laser fiber amplifiers; a master oscillator generating a pump signal at a fundamental frequency; means for coupling the pump signal into each of the laser fiber amplifiers; at least one array of nonlinear linear crystals functioning as harmonic generators; and means for coupling amplified pump signals from the laser fiber amplifiers into respective nonlinear linear crystals, which generate an array of output sub-beams at a desired harmonic frequency. The laser array architecture further comprises means for detecting phase differences in the output sub-beams, and a plurality of phase modulators for adjusting the phases of the laser amplifier input signals in response to the detected phase differences, resulting in phase coherency among the output sub-beams.

[0007] The at least one array of nonlinear linear crystals may be a single array functioning as second harmonic generators (SHGs), providing an output at the second harmonic frequency. Alternatively, the at least one array of nonlinear linear crystals may comprise multiple cascaded arrays, configured as desired to provide a selected higher order harmonic of the fundamental frequency. For example, a second cascaded array of nonlinear crystals may be a second set of second harmonic generators, giving a fourth-harmonic output. In an alternate embodiment of the

invention, a second cascaded array of nonlinear crystals function as a sum frequency generators, mixing the second harmonic with the fundamental to provide an output at the third-harmonic frequency. Other combinations of cascaded second harmonic generators and sum frequency generators can be used to generate output at a desired harmonic frequency.